

### **REMARKS**

In the Office Action<sup>1</sup>, the Examiner took the following actions:

- (1) rejected claims 1-3, 5 and 7-10 under 35 U.S.C. §103(a) as being unpatentable over JP 06-070267 (*Olympus*) in view of U.S. Patent Application Publication No. 2006/0280368 (*Petrich*); and
- (2) rejected claim 4 under 35 U.S.C. §103(a) as being unpatentable over *Olympus* in view of *Petrich* in view of Drettakis et al., NPL Document "Interactive Common Illumination for Computer Augmented Reality," (*Drettakis*).

By this Amendment, claims 1, 2, 4, 5, 9 and 10 are amended, claim 3 is canceled, and claims 16-17 are added. Claims 1-2, 4-5, 7-10 and 16-17 remain pending in this application.

#### **1. Rejection of Claims 1-3, 5, and 7-10 Under 35 U.S.C. §103(a)**

Claim 3 is canceled rendering the rejection moot. However, as elements of claim 3 have been incorporated into claims 1 and 5 respectively, the rejection of claim 3 will be discussed as if applied to claims 1 and 5. Thus, Applicant respectfully traverses the rejection of claims 1-3, 5 and 7-10 under 35 U.S.C. §103(a) as being unpatentable over *Olympus* in view of *Petrich*. The Office Action failed to establish a *prima facie* case of obviousness.

"The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. . . . [R]ejections

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<sup>1</sup> The Office Action contains a number of statements reflecting characterizations of the related art and the claims. Regardless of whether any such statement is identified herein, Applicant declines to automatically subscribe to any statement or characterization in the Office Action.

on obviousness cannot be sustained with mere conclusory statements.”

M.P.E.P. § 2142, 8th Ed., Rev. 6 (Sept. 2007) (internal citation and inner quotation omitted). “The mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art.” M.P.E.P. § 2143.01(III) (emphasis in original). “All words in a claim must be considered in judging the patentability of that claim against the prior art.” M.P.E.P. § 2143.03. “In determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. M.P.E.P. § 2141.02(I) (emphases in original).

“[T]he framework for objective analysis for determining obviousness under 35 U.S.C. 103 is stated in *Graham v. John Deere Co.*, 383 U.S. 1, 148 U.S.P.Q 459 (1966). . . . The factual inquiries . . . [include determining the scope and content of the prior art and] . . . [a]scertaining the differences between the claimed invention and the prior art.” M.P.E.P. § 2141(II). “Office personnel must explain why the difference(s) between the prior art and the claimed invention would have been obvious to one of ordinary skill in the art.” M.P.E.P. § 2141(III).

Here, a *prima facie* case of obviousness has not been established because the Examiner has neither properly determined the scope and content of the prior art nor properly ascertained the differences between the claimed invention and the prior art. Accordingly, the Examiner has failed to clearly articulate a reason why the prior art would have rendered the claimed invention obvious to one of ordinary skill in the art.

Claim 1 recites, in part, “detecting directions of incident light emitted from a plurality of light sources at a plurality of detectors” (emphasis added). Claim 5, although of different scope than claim 1, recites a similar feature.

The Office Action alleges that *Olympus* teaches the claimed plurality of light sources because *Olympus*’s photodetectors “can be used to detect the direction of indoor lighting, thus the system in a room indoors with two lights would detect the indoor lighting direction of a plurality of light sources.” See Office Action, pg. 4. However, this allegation is incorrect.

The Office Action asserts that because *Olympus* discloses indoor lighting, this indoor lighting may include a hypothetical room with two lights. This creation by the Examiner of a hypothetical two-light room is clear evidence that *Olympus* does not disclose a plurality of light sources. Additionally, paragraph [0008] of the English translation of *Olympus* discloses detecting “the direction of [the] indoor lighting” when its photodetectors and processing circuit are indoors, or “the direction” of solar light if the photodetectors and processing circuit are outdoors. Indeed, drawing 1 shows parallel light rays that appear to emit from a single source. Thus, *Olympus* appears to disclose detecting a single direction of a single light source, rather than a “plurality of light sources,” as required by claims 1 and 5. Accordingly, the Office Action fails to meet the requisite burden of proof to establish disclosure or suggestion of at least this claimed feature.

*Petrich* fails to remedy the deficiencies of *Olympus*. That is, *Petrich* also fails to teach or suggest “detecting directions of incident light emitted from a plurality of light sources at a plurality of detectors,” as recited in claim 1.

In view of the mischaracterization of *Olympus*, above, the Office Action has neither properly determined the scope and content of the prior art nor properly ascertained the differences between the prior art and the invention of claims 1 and 5. Thus, no reason has been articulated as to why claims 1 and 5 would have been obvious to one of ordinary skill in the art in view of the prior art. Accordingly, a *prima facie* case of obviousness has not been established with respect to claims 1 and 5 and claims 2 and 7-10, variously depending therefrom. Therefore, Applicant respectfully requests withdrawal of the rejection under 35 U.S.C. § 103(a).

**2. Rejection of Claim 4 Under 35 U.S.C. §103(a)**

Applicant respectfully traverses the rejection of claim 4 over *Olympus* in view of *Petrich* in view of *Drettakis*. A *prima facie* case of obviousness has not been established with respect to the claims.

Claim 4 depends from independent claim 1, and therefore includes all of the elements recited therein. As discussed above, neither *Olympus* or *Petrich* teach or suggest at least the claimed plurality of light sources. *Drettakis* fails to remedy the deficiencies of *Olympus* and *Petrich* because *Drettakis* also fails to teach or suggest “detecting directions of incident light emitted from a plurality of light sources at a plurality of detectors, as recited in claim 1, and required by dependent claim 4.

Thus, *Olympus*, *Petrich*, and *Drettakis*, taken alone or in combination, fail to teach or suggest each and every element recited in independent claim 1 and required by dependent claim 4. Accordingly, no *prima facie* case of obviousness has been established with respect to claim 4. Therefore, Applicant respectfully requests that the Examiner withdraw the rejection of claim 4 under 35 U.S.C. § 103(a).

**3. New Claims 16 and 17**

New claims 16 and 17 are patentable over the applied references because, for example, *Olympus's* image is fixed to a three-dimensional axis in real-space (see paragraph [0011]), and is not based on the display surface as a reference plane, as recited in claims 16 and 17.

**4. Conclusion**

In view of the foregoing, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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